

Sinske HATTORI\*: A remarkable species of  
*Frullania* (Hepaticae) from Java

服部新佐\*: ジャバ産ヤスデゴケ属(苔類)の特殊な1新種

Recently Dr. N. Kamimura, Kochi Gakuen College, kindly sent me some *Frullania* collections made in Java and other regions of tropical Asia at my request. In one of these collections I found several shoots of a very tiny species creeping over the plant of *Frullania ornithocephala*. The lobes of stem-leaves of this species bear several marginal teeth at the distal 1/3. The species with such a toothed leaf-lobe has not previously been known in Asia except for *F. schiffneri* and *F. vaginata* of subgen. *Meteoriopsis* and some species in New Guinea. This species, however, does not seem to have any close relationship to New Guinean members with the toothed leaf-lobes.

*Frullania* (subgen. *Frullania*) *dentiloba* Hatt., sp. nov.

Planta minuta, aliis hepaticis intermixta; caulis ca. 15 mm longus, pauciramosus; folia caulina parva, apice valde involuta, ca. 5-dentata, basi truncata, lobulo longo, cylindrico, stylo parvo, filiforme; amphigastria caulina majora, margine anguste sed arcte $\pm$ repando- vel angulato-recurvo, saepius minute unidentato, 1/3 vel minus bifida, sinu subacuto, angusto, lobis triangulatis, acutis; androecia in caule lateralia, subsessilia, oblongo-capitata bracteis 4-6 jugis. Gynoecia ignota.

Plants minute, red-brown in herbaria, intermingled within a mat of much larger *Frullania ornithocephala*; stem ca. 15 mm long, 0.13 mm in diam., dark red-brown, ca. 0.65 mm wide with leaves, branches few (1-3 per stem), very short and remote, widely to more or less obliquely spreading. Lobes of stem-leaves slightly to moderately imbricate, obliquely spreading (at angles of ca. 30° with the stem), dorsally extending ca. 1/2 the stem-width beyond the farther edge of stem, concave with strongly involute apex, when flat oblong-ovate, ca. 0.55 mm long and 0.4 mm wide,

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apex obtuse to subacute and with distinct apical tooth (uniseriate portion of which is usually 4 cells long), also with 4-5 smaller teeth scatteredly along margin at distal 1/3, dorsal margin usually with recurved outermost row of marginal cells, base truncate, insertion short, oblique; cavities of marginal cells yellow-brown and  $10-12 \times 10 \mu$ , of median cells brownish-yellow and  $20-30 \times 10-15 \mu$ , of basal cells reddish-brown and  $30-45 \times 15-25 \mu$ , walls of marginal to median cells thickened due to large and confluent trigones (intermediate thickenings rarely occur), subhyaline along middle lamellae, deep-brown (to more or less reddish-brown) along outer portion,

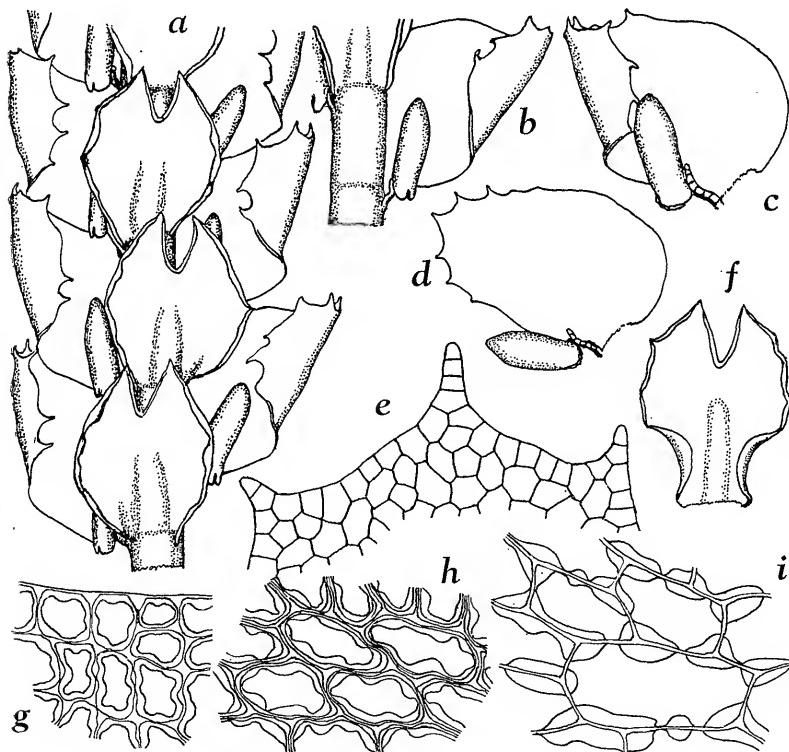


Fig. 1. *a-i. Frullania dentiloba* Hatt. *a.* Portion of stem, ventral view,  $\times 67$ . *b.* Leaf on stem, adjacent underleaf dissected away,  $\times 67$ . *c-d.* Stem-leaves, *c*  $\times 67$ , *d* (flattened)  $\times 54$ . Apex of lobe of stem-leaf,  $\times 260$ . *f.* Stem-underleaf,  $\times 67$ . *g-i.* Cells of lobe of stem-leaf: *g* from margin; *h* from middle; *i* from base; all  $\times 550$ . Drawn from type.

walls of basal cells with large, nodulose trigones (and occasionally with intermediate thickenings), blackish-brown along middle lamellae, deep brown along outer portion; lobules nearly parallel with the stem, comparatively large, cylindric, with obtuse apex and subtruncate mouth (mouth-margins mostly crenulate), ca. 0.26 mm long, 0.12 mm wide at middle and 0.1 mm wide at mouth; stylus small, filiform, 6-7 cells long, uniseriate at upper half, tipped with hyaline papilla. Stem-underleaves slightly imbricate (to contiguous), comparatively large, nearly flat and almost appressed to the stem, narrowly but strongly recurved along margin, oblong, ca. 0.45 mm long and 0.35 mm wide, less than 1/3-bifid, sinus subacute, narrow, lobes triangular, acuminate-acute, margin irregularly repand- to subangular-recurved and often with 1 minute tooth or very weak dentation, rhizoid-initial area indistinct, rhizoids rarely seen, hyaline, fasciculate, shorter than the underleaves, attached firmly to the plant of other *Frullania* (*F. ornithocephala*), insertion transverse. Leaves and underleaves of branches smaller than but similar to those of stem. Dioicous? (gynoecia not seen). Androecial branches nearly sessile (with 1-2 pairs of deformed leaves), of the *Frullania*-type, lateral on the stem, androecia oblong-capitate with 4-6 pairs of compact bracts, bract-lobes without marginal teeth, the lobule similar to the lobe but with 1-3 small teeth along ventral margin, bracteole absent (ventral merophyte reduced).

Type: Java, Bogor, Mt. Tjibodas, 1400 m, on bark of tree (intermingled within a mat of *F. ornithocephala*), Aug. 17, 1972, Coll. M. Okabe et al. no. 5. Type in NICH.

Distr.: Endemic.

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上村登博士から恵送をうけた *Frullania* 属標本のうち *F. ornithocephala* の体上に附着した非常に小さい同属の1種をみつけた。葉上片の上方約1/3の縁に数歯をそなえた特殊な新種と認めたので、トゲバヤスデゴケと命名する。このような縁歯を生ずる種は、アジアでは subg. *Meteoriopsis* に属する2種 (*F. schiffneri*, *F. vaginata*) 以外には、New Guinea に若干産するものがあるが、その何れとも直接的な近縁関係はない。茎腹葉の縁は狭く、しかも強く反曲し、やや波状乃至かどがあり、加えて明瞭な1歯を見ることがある。はっきりした歯が認められない場合も、その反曲した縁部にごく微小な歯状突起が出る傾向がある。標本を提供された上村登博士にお礼申し上げる。